Amendments to the Claims

1.   **(Currently Amended)** Method of scheduling multiple data flows for quality of service adjustment in a CDMA system, especially in a mobile telecommunication system, comprising the steps of:

receiving quality of service requirements of each data flow comprising protocol data units (PDU),

determining a priority order of the protocol data units (PDU) to be served for data transmission on a communication channel, serving the protocol data units (PDU) by dynamically creating transport block sets (TBS) to be transmitted to the physical layer (PHY-layer) with regard to the defined priority order and ~~in dependence of~~ dependent upon allocated radio resource constraints.

2.   **(Original)** Method of claim 1, comprising linking two schedulers each operating on a different protocol layers, wherein each protocol data unit (PDU) of an incoming data flow to be transmitted is scheduled by the scheduler (PDU-scheduler) on an upper layer regarding pre-definable associated quality of service requirements into a priority list to be served by the scheduler (MAC-scheduler) of a lower layer,

and medium access control is performed by the scheduler (MAC-scheduler) of the lower layer thereby optimizing the system efficiency of data transmission by dynamically operating on the protocol data units (PDU) within the priority list.

3.   **(Original)** Method of claim 1, wherein the serving of the protocol data units (PDU) is performed periodically within scheduling intervals and depends on bandwidth, timing and/or power constraints.

4.   (Original)   Method of claim 1, comprising the adjusting of the transmission power required for a user equipment.

5.   (Original)   Method of claim 1, comprising an adjusting of the transmission power is comprising an initial adjustment step using predefined bit-error-rate requirements and an interference to pathloss rate estimation.

6.   (Currently Amended)   Method of claim 5, wherein the adjusting of the transmission power is comprising comprises a subsequent momentary adjustment step using the respective previous transmission power and data rate (R_B).

7.   (Original)   Method of claim 1, wherein an overall transmission power (P_{limit}) of all active data flows is dynamically adjusted for a cell within a limit predefined by an allocated transmission power (P_{ps}).

8.   (Original)   Method of claim 1, comprising adjusting the bit error rate (BER) of the communication channel below a maximum bit error rate.

9.   (Original)   Method of claim 1, comprising ensuring a minimum data transmission rate (R_{Bmin}) and/or a maximum data transmission rate (R_{bmax}) for a user equipment.

10.   (Original)   Method of claim 1, comprising adjusting a transport format set depending on whether a real time service or a non real time service is requested.

11.   **(Original)**   Method of claim 1, wherein a single protocol data unit (PDU) is spread over several scheduling intervals.

12.   **(Original)**   Method of claim 1, comprising scheduling data flows on a downlink shared channel of a UMTS-System.

13.   **(Currently Amended)**   Method of claim 1, comprising scheduling data flows for different users on a dedicated channel in the downlink direction of a UMTS-System.

14.   **(Currently Amended)**   Method of claim 1, comprising scheduling data flows for a single user ~~on~~ in an uplink direction of a UMTS-System.

15.   **(Currently Amended)**   CDMA system, especially a mobile telecommunication system comprising a transceiver unit having means for providing a priority order of protocol data units (PDU) of multiple data flows with regard to a predefined flow's quality of service requirements and for dynamically scheduling the ordered protocol data units (PDU) ~~in dependence of~~ dependent upon allocated radio resource constraints.

16.   **(Currently Amended)**   System of claim 15 comprising at least two schedulers each operating on different protocol layers, wherein the scheduler (PDU-scheduler) operating on an upper layer ~~scheduls~~ schedules each protocol data unit (PDU) of an incoming data flow to be transmitted into a priority list to be served by the scheduler (MAC-scheduler) of a lower layer, and the scheduler (MAC-scheduler) of the lower layer performs medium access control thereby optimizing the system efficiency of data transmission by dynamically operating on the protocol data units (PDU) within the priority list.

17. **(Original)** System of claim 15 comprising scheduling means for adjusting the transmission power required for a user equipment.

18. **(Original)** System of claim 15 comprising scheduling means for adjusting the transmission power subsequent to the establishment of a communication channel by using the respective previous transmission power and data rate (R_B).

19. **(Original)** System of claim 15 comprising scheduling means for monitoring the throughput without retransmissions and to compare said throughput with a virtual bandwidth depending on an allocated transmission power (P_{ps}) for adjusting an overall transmission power (P_{limit}) within a limit predefined by said allocated transmission power (P_{ps}).

20. **(Original)** System of claim 15 comprising scheduling means for ensuring a minimum data transmission rate (R_{Bmin}) and/or a maximum data transmission rate (R_{bmax}) for a user equipment.

21. **(Original)** System of claim 16 comprising the scheduler (PDU-scheduler) of the upper layer is operating with timestamps assigning every protocol data unit (PDU) or every data flow.

22. **(Currently Amended)** System of claim 15 comprising two linked schedulers operating on the Logical-Link-Control-layer and on the Medium-Access-Control-Layer, respectively.

23. **(Currently Amended)** System of claim 15 comprising a ~~UTMS-system~~ UMTS-system.

24. **(Original)** Base transceiver station comprising a transceiver unit for using in a system of claim 15.

25. **(Original)** Mobile station comprising a transceiver unit for using in a system of claim 15.

26. **(Original)** Implementation software for performing a method of claims 1.